Chesapeake Bay Program's (CBP) Scientific and Technical Advisory Committee (STAC) Workshop

The State of the Science and Practice of Stream Restoration in the Chesapeake: Lessons Learned to Inform Better Implementation, Assessment and Outcomes

March 21-23, 2022

Potomac Science Center | Woodbridge, VA

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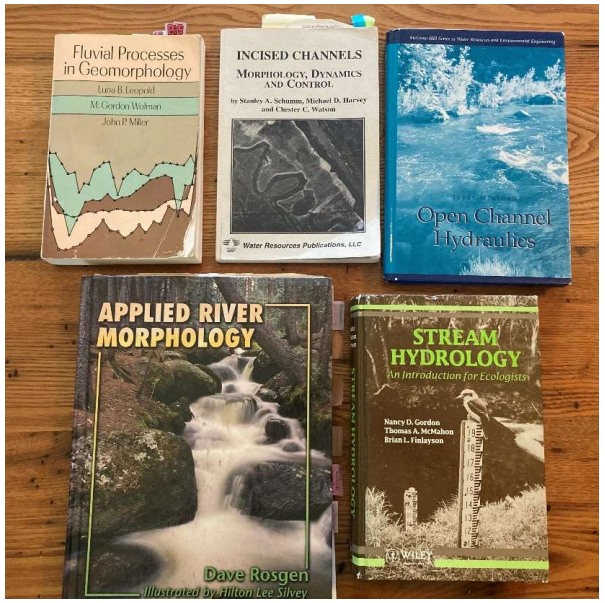
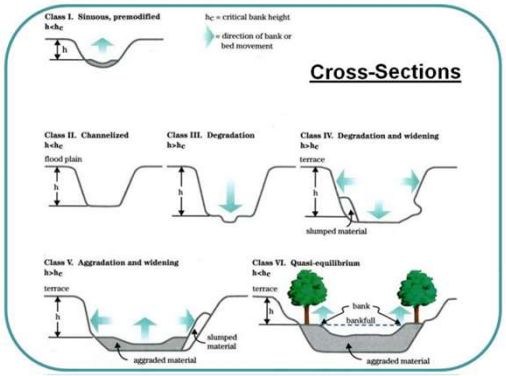
McCormick Taylor, Inc.

Important Publications

- The Importance of Fluvial Morphology in Hydraulic Engineering (Lane 1955)
- Fluvial Processes in Geomorphology – (Leopold, Wolman, and Miller 1964)
- River Continuum Concept Vannote 1980
- Incised Channels Morphology, Dynamics and Control – (Schumm, Harvey, and Watson 1984)
- Stratigraphy and Recent Evolution of Maryland Piedmont Flood Plains (Jacobson and Coleman 1986)
- Channel Evolution Model (Simon 1989)
- A Classification of Natural Rivers (Rosgen 1994)
- Natural Streams and the Legacy of Water-Powered Mills – (Walter and Merritts 2008)





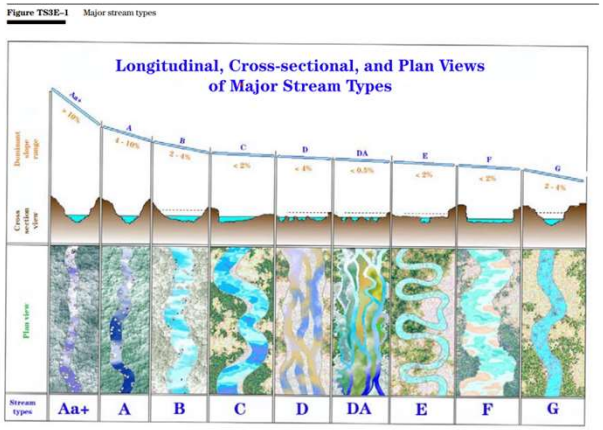
Stream Restoration Begins and Grows

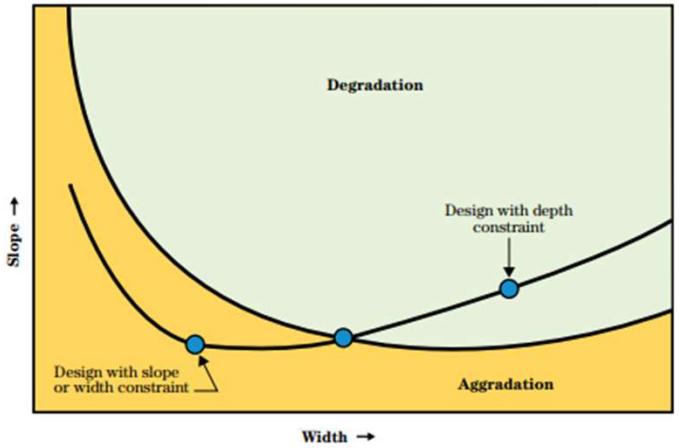
- 1982 Stormwater Management Act
- 1980's – Anacostia Watershed Restoration Team - MWCOG
- 1982 NRCS Begins Streambank Restoration Program
- 1988-1990 – Baltimore County Establishes Waterway Improvement Program
- 1991 – FHWA enforces CWA on DOTs – MDOT SHA Begins Restoration Program with Sands Road, Buckingham, and Broadmead
- 1988-1990 Watershed Plans and Mitigation lead to first Stream Projects in Maryland
    - Sligo Creek, Quail Creek, Spring Branch, White Marsh, Trib 9 of Sawmill Creek, Long Quarter
- 2000 Stormwater Design Manual

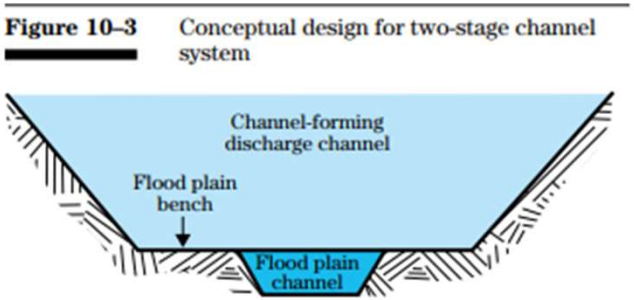




Evolution of In-Stream Strategies

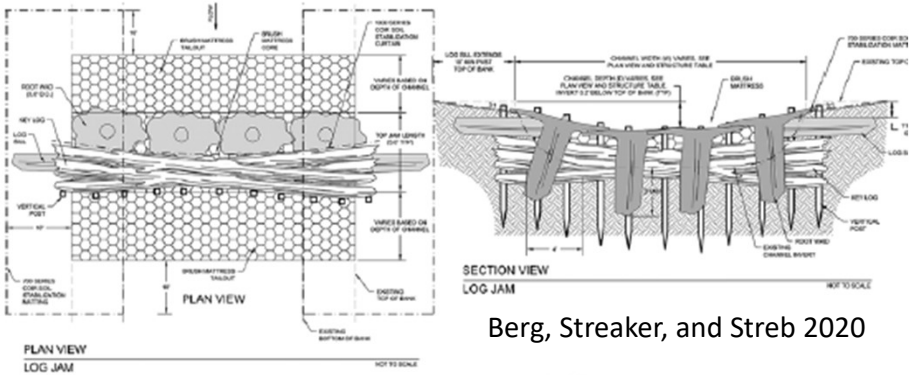




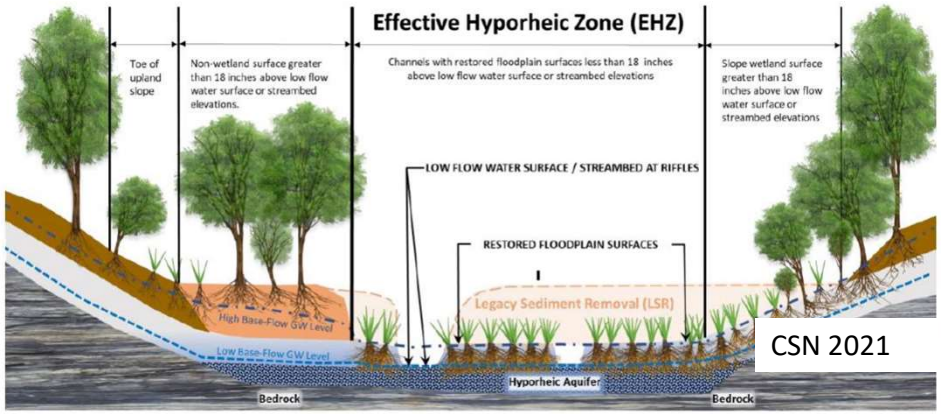


USDA-NRCS 2008

Single Thread Channel Design to Floodplain Design



Berg, Streaker, and Streb 2020



CSN 2021

Thank You and Questions